GRUMMAN plane news

Vol. 33, No. 10, Bethpage, N. Y., May 24. 1974

Shareholders' Meeting, '74:

BANK CREDIT TO BE RESTORED, SAYS BIERWIRTH

The speeches were a little longer than usual and, in general, repetitious of the information contained in the 1973 Grumman Annual Report. Plant 4, with its wall-to-wall displays of products and progress, seated 850 stockholders for the two-hour session. The outside temperature was in the 80s and the humidity inside was relieved only occasionally when the huge hangar doors were opened to allow in a breeze and a bird or two. There were some new faces on the dais, but the most noticeable difference at this year's annual meeting of Grumman Corporation stockholders, compared with last year's meeting, was the positive expression of things to come and the apparent prosperity in store for Grumman for this year and for several years hence. And in spite of the length of the meeting and the discomfort of the facilities, that is the kind of news that leaves stockholders smiling, and that, after all, is what annual meetings are all about.

Grumman Corporation President Jack Bierwirth said "1974 looks to be a good year for Grumman."

Highlight of the meeting was Bierwirth's announcement that the company expects its commercial bank loan credit lines to be restored shortly, replacing the company's current reliance on a special advance payment agreement with the federal government under which Grumman has been financing its cash operating needs. Grumman lost its bank credit line in 1972 when it was in the midst of a contractual dispute with the Navy over the F-14.

DIVIDEND DECLARED

The Board of Directors of Grumman Corporation, declared on May 16 dividends on both of its common and newly issued preferred stocks.

A dividend of 15 cents per share was declared on the corporation's common stock payable June 20 to shareholders of record June 10. A dividend of 20 cents per share was declared on the preferred stock payable June 20 to shareholders of record June 10.

"The tax-loss carry-forward has now been completely used up," Bierwirth said. "It is extremely helpful to benefit from some aspect of the U.S. tax laws, but at the same time, it is good to have another reminder of our difficult financial days behind us. Very soon a second reminder will be a matter of the past. With the turnabout that has taken place, and the rebuilding of Grumman's financial sinews, we have been pleased to find a willingness on the part of the banking community to reaccept Grumman on a regular commercial basis. The terms of the purchase agreement for the 30 Iranian F-14s will shortly be resolved. When we have that agreement in hand and can present the banks with our estimates regarding the company's cash needs over the next few years, we expect we will be in a good position to cancel the advance payments agreement with the U.S. government and deal on a regular basis with our banks."

During the early part of the meeting, the stockholders voted in favor of two proposals in the proxy statement: to amend the certificate of incorporation to increase the authorized preferred stock from one million to ten million shares and to increase the authorized number of directors. The members elected or re-elected to the board of directors for terms to expire in 1977 are Kenneth S. Axelson, John C. Bierwirth, Joseph G. Gavin Jr. and George M. Skurla.

On the business side, Bierwirth reported that consolidated sales in 1973 reached $1,088,000,000 compared with $686,000,000 in 1972, making it the fourth time in the company's history for sales to exceed the billion dollar mark. Consolidated profits including the benefit of the tax loss carry-forward were $28,243,00 in 1973 compared with a loss of $70,000,000 in 1972. Of a per share basis, this amounted to a profit of $4.15 a share instead of the 1972 loss of $10.26 per share.

In his opening remarks, Board Chairman Clint Towl said that 1973 was a year of resurgence for the corporation. "We were able to put the contractual problems related to the F-14 program behind us," he said, "and as a result of some outstanding performances among our other major programs and our subsidiaries, we returned to the billion-dollar sales level and recorded substantial profits. Our overall performance, I'm very happy

(Continued on page 3)

Grumman Aerospace making strong bid for contract on GPS

In ancient times the seafaring Greeks relied on stars they called Regel, Arcturus, and Polaris to guide them on their voyages across the Aegean. Modern man with his reliance on radar and inertial navigation systems has come a long way since the mariners first steered by the Pole star. Yet by the late 1970s, a new set of stars, NAVSTARS, will bring 20th century man with his ground-based guidance systems back to star gazing as the Greeks did, but with a navigationl accuracy that would have astounded the ancients.

And if things go successfully in the next couple of months, those stars could have Grumman's name on them.

The Global Positioning System (GPS), of which NAVSTARS are a part, is a newly authorized space program sponsored by all three armed services. The Air Force, through its Space and Missile Systems Organization (SAMSO), will be responsible for development and operation of the system. Navy and Army personnel will support SAMSO's program office to ensure compliance with their individual needs.

When in full operation, GPS will include 24 satellites called NAVSTARS to be launched from Vandenberg Air Force Base in California and placed in a circular orbit about 11,000 miles above the earth's surface. Tentative plans call for three "rings" of eight satellites each in orbits inclined about 60° to 70° to the equator.

Coded signals

Working in conjunction with a series of ground stations, the NAVSTARS will continuously transmit coded signals giving the satellites' precise position and an exact reference time.

By using signals from four of these NAVSTARS simultaneously, the user — a commercial jet, ship at sea, or submarine, for example—can establish his position with almost pinpoint accuracy anyplace in the world through simple calculations akin to triangulation techniques. (The most advanced systems available today, those that enable ballistic missiles to traverse intercontinental ranges, permit navigational accuracy of less than a mile—but not anywhere near the accuracy of GPS.) The system will not only provide greater accuracy, says Program Manager Don Imgram, but it could have up to $500 million a year by replacing LORAN and other ground-based navigational systems.

Present Air Force plans call for the GPS to evolve in three phases. During Phase I, four satellites will be launched in 1977 aboard an Atlas F booster, the same launch vehicle that is being used on the Grumman-Air Force ELMS spacecraft program. Each NAVSTAR will weigh about 1,400 pounds, with about half of that weight being a solid rocket motor used to complete an orbital injection process.

Thousands of 'users'

During Phase II later in this decade, an additional five satellites will be orbited, with full deployment of the remainder of the satellites in Phase III. Since each satellite should have a lifetime of over five years, replacement launches will be infrequent.

As now planned, there will be six classes — or grades — of users for the transmitted NAVSTAR signals:

- Class A user equipment will meet high accuracy needs and will be incorporated in attack or strategic bombers, including, perhaps, Grumman's A-6 aircraft.
- Class B equipment will be employed in fighter aircraft such as the F-14 where accuracy must be maintained while maneuvering.
- Class C equipment, which is more economical, is intended to be used in situations where accuracies of several hundred feet are acceptable. Grumman's Gulfstream aircraft might be such a user when the GPS NAVSTARS become available for civilian use sometime in the late 1980s.
- Class D will be for surface vehicles, land and sea.
- Class E is intended for man-portable back packs (infantry use) as well as for missile and satellite guidance.
- Class F is for submarines.

Don Imgram estimates the total number of users at over 30,000, "and that figure," he says, "is conservative."

On April 1, Grumman submitted a bid to the Air Force's SAMSO for the design, fabrication, integration, checkout and test, and launch of the satellites for the Phase I program. The proposal also included a quotation for support of in-orbit operations through the end of 1979. Competing bids were submitted by Rockwell International, Philco-Ford, and RCA (Hightstown, N. J.).

Grumman has been with the GPS project from the beginning, and, as a result, says Vice President Tom Kelly, director of Space Programs, the company should be in a good position to win the contract.

Grumman Aerospace won the initial contract four years ago to develop an experiment, using Grumman-developed prototype user equipments — transmitters, receivers, and related ground station equipment — to verify the GPS concept at Holloman Air Force Base in New Mexico. John Courtney of Space Advanced Systems headed that effort. The system proved so promising that Washington officials gave the go-ahead for the actual satellite demonstration as part of Phase I.

"We believe that the Holloman test proves that Grumman has the talent, the technology, and the experience—our past space successes in OAO and the Lunar Module have proven that—and those should be a big help in our effort to win the development contract," says Imgram.

Imgram also feels that the Air Force's emphasis on the "lowest risk" approach — an approach that stresses durability and long life — will be another big plus for Grumman considering its record for performance. This reputation, exemplified by the flawless performance of the Lunar Module, could pay off doubly, Imgram believes, since the Air Force has offered an incentive fee based on the number of functioning days of the satellites in orbit.

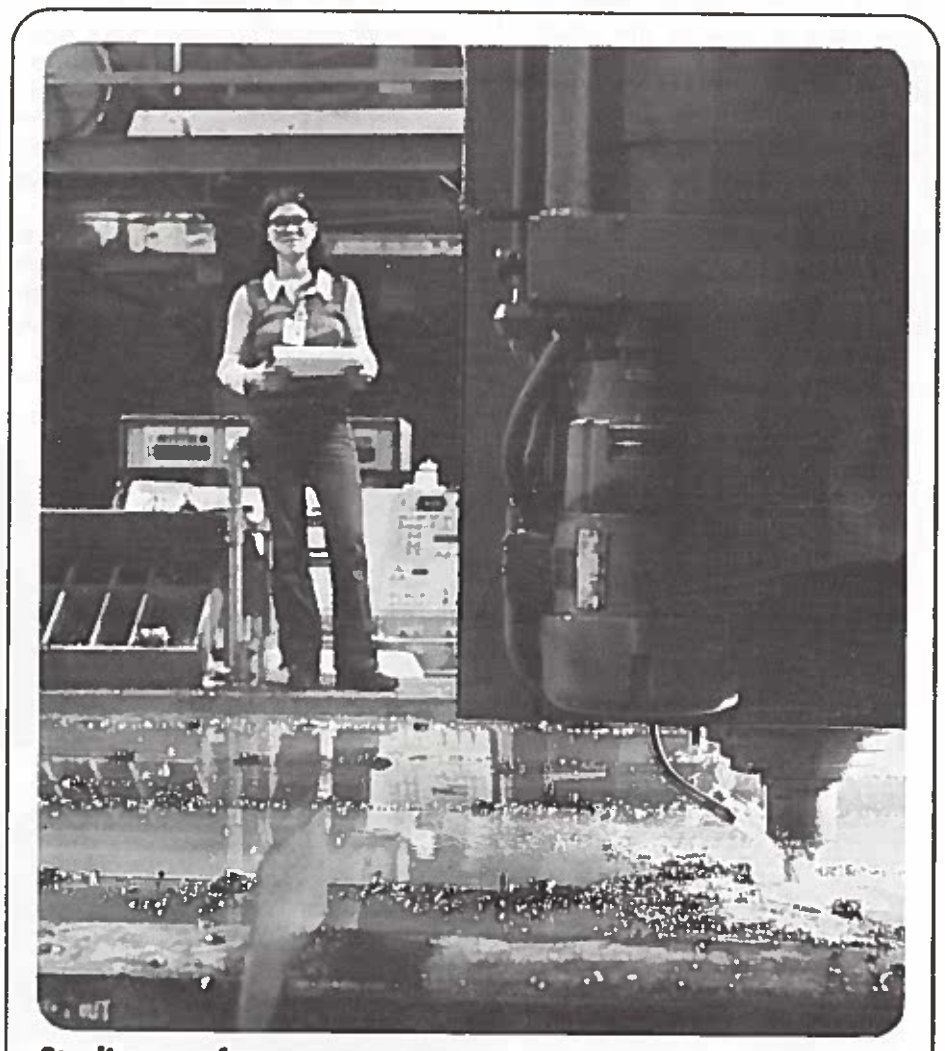
"Getting an incentive fee for a product that works," says Imgram, "is a bonus to us because we expect to deliver products that perform." The Global Positioning System design that Imgram is convinced could return that incentive fee to Grumman was produced by the experienced design team was headed by project engineer Don Moyer of Space Advanced Systems. The design relies heavily on the background provided by Grumman's current Air Force satellite program, ELMS.

Optimistic on chances

"There is not a single aspect of the GPS satellite design with which we do not have applicable experience," Moyer emphasizes.

The development contract will be awarded about July 1. The competition will be a tough one according to Imgram and Military Space Marketing Manager John Papazian. But they are optimistic about Grumman's chances based on the company's solid background in GPS and Grumman's "low-risk" reputation.

"Low risk," says Imgram, "is not any one single thing—it's an attitude at Grumman."



Sterling performance. At Plant 58 in Sterling, Va., Nicole Staleyl, one of nine female machine operators at the facility, checks progress of F-14 titanium wing skin being machined on two-spindle, three-axis skin mill

plane GRUMMAN news

Published twice a month for the employees of Grumman Corporation, Bethpage, N. Y. 11714, as a function of the Public Affairs Dept., Vice President J. B. Rettaliata, director.

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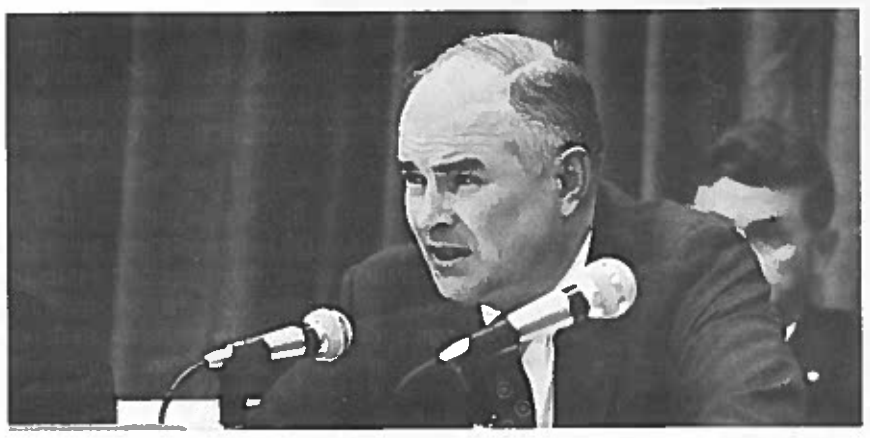

Shareholders' Meeting

(Continued from page 1)

to say, also enabled us to resume dividend payments which, as we announced in February, would hereafter be considered on a regular quarterly basis."

Towl said the corporation's resurgence was not only financial but also physical in terms of "an expanded effort in our continuing quest for new areas of business." He noted that export sales had increased, the F-14 procurement by Iran is now being negotiated and that the company's commercial activities accounted for 30 per cent of consolidated earnings in 1973. He then cited three matters which "warrent particular attention":

- the election of George Skurla as president of Grumman Aerospace.
- the disclosure of contracting improprieties in the company's technical publications area and the indictments of the employees involved.
- the resignation of Russ Meyer as president of Grumman American Aviation Corporation, with Towl elected to fill the vacancy.

Outside Plant 4, and inside around the perimeter and into the seating area, were exhibits of nearly all Grumman products and current programs. Near the entrance, the exhibits included a solar energy collector, a windmill-driven generator system, a Pearson yacht, several of Grumman Allied's vehicular products, a Tomcat, and several other aircraft, including a Grumman American Traveler.

Inside, most areas of the company was represented, including Grumman Ecosystems, Grumamn American Aviation, Grumman Allied (including Health Systems), Grumman International and Grumman Data Systems. The largest exhibitor was Grumman Aerospace with displays that included Project Sterling, design-to-cost, subcontracting, energy systems, civil systems, training systems, the A-6, E-2 and F-14 programs, manufacturing, research and product support.

Comeback for Aerospace

Joe Gavin, Board Chairman of Grumman Aerospace, led the talks by heads of the Grumman subsidiary companies, saying that "1973 has been a comeback year for Grumman Aerospace." "There was a shift from emphasis on R & D as we focused our main attention on F-14 production build-up," he said. "During the year our overall employment stabilized at a level of 22,600. Toward year-end we faced growing requirements for support products and services associated with U.S. Navy plans for fleet deployment of F-14, EA-6B and E-2C aircraft during 1974."

Gavin cited many new or continuing activities including the establishing of the Great River facility where 2,000 employees will be engaged in supporting increased avionics requirements and which houses the new training and simulator group; the formation of Grumman Houston Corporation as a wholly owned Grumman Aerospace subsidiary; the formation of the Energy Systems Group to apply aerospace technology toward developing new energy sources; the F-14, E-2C, EA-6B and A-6 programs, all of which are on schedule and proceeding well; several space programs, including the Shuttle Wing contract, the training aircraft for the Space Shuttle, and the contract to produce two Earth Limb Measurement Satellites; several study contracts including a design study for the Air Force's EF-111 and three NASA funded studies for system requirements for the next generation of earth resources satellites. In the area of applying Gruman's aerospace technology toward solving civil problems, he noted the Ozotherm waste treatment system, a new fire hose nozzle and the application of heat pipe technology to commercial and civil applications.

Record sales for Allied

Board Chairman Wally Spielman, speaking for Grumman Allied, reported that although profits were adversely affected in the last quarter of 1973 by the impact of the energy shortage on motorhomes sales, the subsidiary finished the year with record sales for the third year in a row. He said that Olson Truck Bodies, Grumman Boats, Pearson Yachts and Wormuth Brothers Foundry divisions contributed substantially.

Spielman said that sales last year reached $44,289,000 with a net income of $1,060,000 compared with sales of $34,055,000 and net income of $1,165,000 for 1972.

Grumamn American Aviation was also sharply affected by the fuel shortage. Clint Towl, reporting on the subsidiary's first full year of operation, said: "It has been, and will no doubt continue to be an interesting year — not as profitable as it might have been, but certainly better than many of us expected during the dark days which followed the initial fuel restrictions."

Grumman American delivered 663 aircraft in 1973, representing total sales during the year of just under $87 million. Net income for the year was nearly $12 million which included a carry-over tax credit of $5.3 million.

"Grumman Data Systems had its fourth profitable year and continued to grow in 1973," said the subsidiary's President Bob Nafis. " . . . doubling its commercial sales base and adding to its commercial potential. We are fulfilling our plan to expand our services, our marketing areas and our facilities."

Nafis pointed out that while delivery of the Masstape automatic retrieval tape library system wouldn't begin until 1975, some areas of growth include:

(Continued on page 8)

Name 10 seniors Grumman scholars; four-year awards provide free tuition

David Maurer
Ward Melville H.S.

Stuart Hollander
Half Hollow Hills H.S.

Robert Klein
Walt Whitman H.S.

Edward Miller
Amityville H.S.

On April 15 the telephone rang in 10 homes on Long Island bringing the word to 10 high school seniors that they were the '74 Grumman Engineering Scholarship winners. For the past 30 years, Grumman has been offering these scholarship awards "to encourage talented and ambitious graduates of Long Island schools to study engineering." The winners receive four years an an accredited engineering college of his or her choice with the company paying the tuition and laboratory fees. They are also provided summer jobs with the company, and employment with Grumman after college, provided a suitable position is available at that time.

With the exception of a three-year period from 1955-57 when 13 were awarded, 10 engineering scholarships have been awarded annually. But this year marks another first—there will be 11 Grumman scholars from the class of '74. Donald Jue, son of Suey Jue who works in Research Operations in Plant 35, won a dependent scholarship but decided to enter Rensselaer Polytechnic Institute on a six-year medical program, thus making him ineligible to receive the Grumman award. Therefore, the first alternate, Stuart Hollander of Half Hollow Hills High School became a Grumman scholar. Another Grumman dependent, Karen I. Hansen, daughter of James Hansen, Simulation, Plant 7, won a Grumman grant in the open competition, but elected to enter tuition-free Web Institute in Glen Cove to study marine engineering. Thus, another scholarship grant was then available, even though Karen is still considered a Grumman scholar. Drahomir Lazar of Centereach High School is now able to attend the engineering school of his choice.

Each year, three of the grants are designated for dependents of Grumman employees who are named entirely on the basis of their standings in the College Entrance Examination Board (CEEB) tests taken in March. The other seven winners and the three alternates are selected on the basis of their CEEB tests, academic and personal backgrounds, and achievements.

Last year marked the first time in the 30-year history of the Grumman Engineering Scholarship Program that Grumman dependents won tuition grants in open competition. Again this year, a son and a daughter of Grumman employees turned up winners in the open competition. They are Stephen Moreira, son of Howard Moreira, Maintenance Design, Plant 7, and Karen Hansen, daughter of James Hansen.

The winners of this year's Grumman Engineering Scholarships are:

DAVID M. MAURER, son of Gerry Maurer, EA-6B program manager, plans to enroll at Massachusetts Institute of Technology to study naval architecture. A senior at Ward Melville High School in Setauket, David is a National Merit Scholarship semi-finalist, member of the National Honor So-

Gary Katzenstein
Jericho H.S.

Michael Wengler
Farmingdale H.S.

Karen Hansen
Cold Spring Harbor H.S.

Peter Cimento
Regis H.S.

Stephen Moreira
Hauppauge H.S.

Drahomir Lazar
Centereach H.S.

Stephen Hill
Floral Park Mem. H.S.

Gary Wei Chiem Lim
Garden City H.S.

Peter Kretzman
Cold Spring Harbor H.S.

ciety, and Regents Scholarship winner. One of his professors states that "his spare time is spent reading maritime literature and he has a keen interest in naval architecture, nurtured independently of this school's offering." This Grumman scholar has participated in his school's varsity wrestling, football and lacrosse teams.

MICHAEL J. WENGLER, son of Norbert Wengler, A-6E Flight Acceptance, Plant 7, will pursue a carer in physics at Swarthmore College this fall. Young Wengler is a member of the Math club and Current Affairs club at Farmingdale High School. Musically inclined, Michael plays the violin, piano, and guitar. He is also very active in the Junior Historical Society. Ranking 22 in a field of 1,050 students, this scholar has been on the dean's list and honor rolls the entire four years at Farmingdale High honor rolls the entire four years at Farmingdale High.

This fall, KAREN I. HANSEN, daughter of James Hansen, Simulation, Plant 7, will find herself as the sole female in the select 20-student freshman class at Webb Institute. Planning to concentrate in marine engineering, Karen attributes much of her interest in engineering to her father. An active girl at Cold Spring Harbor High School, Karen belongs to the International Club, Drama Club and Band. Her interest branches out into choreography, directing and dance. She recently played the lead in "Arsenic and Old Lace."

STEPHEN MOREIRA, son of Howard Moreira, Maintenance Design, Plant 7, will enter Rensselaer Polytechnic Institute this fall to attain his bachelor and master of science degrees in an accelerated four-year program in electrical engineering. This Hauppauge High School senior feels that "the future is becoming increasingly dependent on how scientists and engineers use their discoveries." Last summer he completed Calculus I and II at Stony Brook University. A member of the honor society, Mu Alpha Theta, Stephen works part time as a repair technician, and holds the highest amateur rating in radio theory and code.

PETER G. KRETZMAN of Cold Spring Harbor High School plans to concentrate in computer sciences at Stanford University this fall. His father, Byron, is a senior electronic engineer from the State of New York. Peter has won several math honors including first place in the L.I. Math Fair for senior high school computer science projects, and first place in math at the National Computer Conference for High Schools. In addition, he has had articles published in the Digital Equipment Computer Users Society (DECUS). His teachers describe this scholar as "tireless, and extremely reliable and a possessor of leadership." Holder of a general class amateur radio license, Peter is editor-in-chief of his school paper and sports correspondent for the town newspaper, *The Long Islander*. This scholar's activities also include junior leader in the Boy Scouts and lab assistant in the school's computer lab.

A senior at Walt Whitman High School in Huntington, ROBERT W. KLEIN will attend Princeton University this fall to study aerospace engineering. Interested in astronomy since the third grade, Robert is a member of the L.I. Observer Association and has traveled to Africa and Canada to study eclipses. Last year at the National Computer Association he won first place for his basic language computer program which calculated the circumference of the eclipse. He was asked to speak at the International Computer Symposium in Philadelphia and also before Mu Alpha Theta. Aerospace oriented, this Grumman scholar has built flying balsa aircraft models, gas-powered model planes, and model rockets. A mathlete for six years, he is also treasurer of the Student Organization, announces and acts as technician for the school's TV production of Whitman News. Robert's father is a mechanical engineer at Beukers Labs in Bohemia.

EDWARD S. MILLER of Amityville High School will attend Massachusetts Institute of Technology to study aeronautics. This scholar thinks that Grumman Aerospace should become more active in space research again. Selected by the American Legion for Boy's State, Edward participates in many extra-curricular activities in high school. Among them are the math club, of which he is co-captain, the drama club, the school newspaper, of which he is editor, footoball, and the band. Serious-minded and level-headed as described by his professors, this Grumman scholar is also Vice-President of the National Honor Society and was a semi-finalist in the National Achievement Program.

A. PETER CIMENTO of Regis High School in New York City plans to attend Massachusetts Institute this fall to major in mechanical engineering. This June graduate of Regis, where six percent of those who apply to the high school are accepted, traveled to Innsbruck, Austria, last year to learn German. Valedictorian of his class, Peter was a National Merit semi-finalist. He is also active in the debate and speech club.

STEPHEN RANDOLPH HILL of Floral Park Memorial High School has aspirations of becoming an expert in the field of computer sciences and systems analysis, so in September he will attend Massachusetts Institute of Technology. This Grumman scholar is deeply involved in the computer field. His father works as a purchasing agent for Biddle Purchasing Co. in New York City and brings home electronic handbooks covering over 30 computers. Stephen reads all of these magazines and designs his own digital circuitry, and is presently building a mini-core 8K from Ampex. He also plays trumpet in the school band, belongs to the math team, and runs the 600 yard dash for his track team.

STUART HOLLANDER of Half Hollow Hills, Huntington, will further expand his knowledge of computer science this fall at Yale University. For the past three years he has been employed by Stony Brook University to devise computer programs in support of the National Science Foundation's Curriculum Development Project. He has developed compilers and modified operation systems. Stuart is also a consultant for Hewlett-Packard. At his high school he helps his teachers develop computer curricular and materials which are used throughout the district, and is currently working on a fundamental base system design from which all programs can be constructed. In addition to his computer endeavors, this scholar is a member of the National Honor Society and the debate and drama clubs of his high school.

Valedictorian of Centereach High School, DRAHOMIR LAZAR has a strong interest in flying, physics and math and hopes to combine those interests for an aerospace career. This MIT-bound scholar attained the rank of Eagle Scout at the age of 15 and is presently a junior assistant scoutmaster. He is particularly interested in the design of aircraft and space vehicles and the research necessary to develop his concepts. Drahomir plays the trumpet in the concert and marching band and is a member of the National Honor Society. His father, Drahomir, is a mechanical engineer for the Department of Buildings and Grounds of Suffolk County.

Should a full scholar change his plans or no longer qualify for his or her Grumman Engineering Scholarship, the "alternate," steps into the vacancy. The alternates are:

GARY WEI CHIEM LIM, a senior at Garden City High School, will attend Princeton to study electrical engineering and computer science. GARY J. KATZENSTEIN will be graduating from Jericho High School and plans to study computer engineering at Brown University next fall.

Members of the Scholarship Committee are Roy Grumman, Honorary Chairman of the Board and a director of Grumman Corporation; Clint Towl, Chairman of the Board of Grumman Corporation; Bill Schwendler, former Chairman of the Executive Committee of Grumman Corporation and presently a director; and Dr. Ellis L. Phillips Jr., President of Ithaca College.

The Scholarship Recommendation Committee consists of Larry Mead, Vice President-Technical Operations, chairman; Tom Kelly, Vice President-Space Programs; Alex Alexandrovich, Vice President and director of Product and Technology Development; Dr. Ralph Tripp, Vice President and director of Training Systems; Jim Zusi, Vice President and director of Operations Quality; and Dan Knowles, director of Personnel.

Plan family day at Calverton

A Family Day at Grumman Aerospace's Calverton facility is tentatively planned for Sunday, June 16, with tours of Plant 6, Plant 7, Automated Telemetry Station, anechoic chamber, and static displays of aircraft on the schedule. Flight demonstration depend on approval by the Federal Aviation Authority.

Last fall, a similar event attracted about 50,000 people to the Bethpage complex; it is expected a like number will visit the Calverton site.

Advance registration of Grumman families will be required at ESO offices since special badges and tags will be required for entry to Calverton. Additional information will be included on *Newsboard* and the June 14 edition of Plane News.

OBITUARIES

WILLIAM R. DIONE of Sub-Assembly, Plant 36, died May 12 at the age of 48. He had been with Grumman Aerospace since 1967 and lived at 16 Leech Circle No., Glen Cove.

ALLEN V. KESSLER of Measurement Standards Administrative Ops., Plant 12, died May 7 at the age of 63. He had been with the Company since 1946 and lived at 7 Westfield Place, Glen Cove.

Memorial flight scholarship

A flight training scholarship has been established by Northfield Aviation Corporation to honor the memory of former Grumman Test Pilot Bill Miller who was killed in a crash of an F-14 on June 30, 1972. The scholarship provides 75 percent of the cost of the flight training necessary for a person to obtain a private pilot's license. The initial award will be made in June by Northfield Aviation, a flight training school operating from Islip MacArthur Airport. The scholarship is open to dependents (16-19 years of age) of Grumman Aerospace employees; one award will be made each year. For further information, please contact The William Miller Memorial Scholarship Committee, c/o Northfield Aviation Corporation, 354 Ridgefield Road, Hauppauge, N. Y. 11787.

S. F. Michalowski | J. S. Emge | H. R. Wellander | H. C. Haws | B. E. Lehtila | F. Sangiovani | A. L. Pflug | J. J. King | S. M. Vogel

C. F. Chlanda Jr. | J. Peters | G. L. Schomburg | V. J. Lebas | T. A. Capozzoli | J. B. Antonowicz | S. Sakellarides | E. Cramer | W. F. Raeside

R. L. Pellegrino | J. J. Shade | O. Longo | E. J. Looney | A. H. Spencer | J. T. Wilbert | H. A. Heinlein | P. Vanek Jr. | W. J. Platt

A. V. Weston | C. F. Ballweg | H. J. Gobrick | C. Carretta | W. J. Karl | J. A. Transue | R. Cochrane | E. J. Rotzinger | E. E. Schulz

B. Tauber | J. J. Magee | O. A. Kreischer | T. B. Bond | A. Spadalik | J. J. Jaeger | J. Feola | L. A. Mazzocchi | T. H. Goddard

G. E. Lange | A. C. Cotrone | R. Zoellner | R. A. Wagenseil | C. M. Botti | R. L. McConaughy | D. F. Martin | J. L. Lagerstedt

service milestones

35

Virgilio Sturiale, Mech. Sys. Staff (5)
Joseph G. Tangle, Calv. Warehouse
John H. McNally, P/S Sys. Anal. (15)

30

Salvatore L. Camerlengo, Maj. Assy. (1)
Michael Basta, Small Parts Fab. (2)
George C. Williams, Alodine (2)
Elvin E. Harrison Jr., Prototype (2)
Joseph G. Eder, Prototype (2)
Henry Chodak, Hydraulics (2)
Francis Hartrodt, Templates (2)
Joseph L. Cipp, BPA-Mgmt. and Staff (2)
Walter F. Betts, Engraving (3)
Thomas H. Noonan, Static Test (5)
Clarence C. Collins, Static Test (5)
George N. Baldwin, P/S Tech. Serv. (5)
Fred Hall, Assy. Methods and Plan. Lab (6)
Arthur F. Schaeffler, Meas. Stand. Lab. (12)
Bruce A. Hollister, Lab. Mgmt. Tech. (14)
Alfred A. Cestari, Crit. Mater. Cont. (21)
Victor Demeo, Sub. Assy. (36)
Charles Petri, Dets. and Subs.-Mngt. and Staff (37)
George A. Erh, Prod-Rel. and Anal. (43)

25

Bernard E. Heaney, Prototype (1)
Stanley F. Michalowski, Fuselage Assy. (1)
James S. Emge, Sub-Assy. (1)
Frank Magro, Jr., Planning (1)
Harold R. Wellander, Planning (1)
Herbert C. Haws, Press (2)
Bruno E. Lehtila, Sm. Parts Fab. (2)
Frank Sangiovanni, Spotweld (2)
Alfred L. Pflug, Steel Parts Assy. (2)
James J. King, Dets. and Subs. (2)
Samuel M. Vogel Jr., Dispatch. (2)
Charles F. Chlanda Jr., Prod. Ctl. (2)
John Peters, Prod. Ctl. (2)
George L. Schomburg, Prod. Release Anal. (2)
Vincent J. Lebas, Proj. Proposals (2)
Thomas A. Capozzoli, Planning (2)
Joseph B. Antonowicz, Ind. Engg. (2)
Salvatore Sakellarides, Mfg. Ops. Prog. (2)
Edward Cramer, Mach. Shop (2)
William F. Raeside, Form Block (2)
Robert L. Pellegrino, Tool Control (2)
John J. Shade, Marshall and Fin. Tl. Ctl. (2)
Robert Dianni, Dispatch. (2)
Onofrio Longo, Assy Tool. (2)
Louis Pascucci, Maint. (2)
Edwin J. Looney, Router and Shear (3)
Edmund J. Hanlon, Sm. Parts Fab. (3
Bartha F. Martorell, Wing Sub.-Assby. (3)
Alfred H. Spencer, Honeycomb (3)
James T. Wilbert, Flt. Oper./Gulf O&R (4)
Herman A. Heinlein, Flt. Opr./Gulf O&R (4)
Philip Vanek Jr., Plant Stores (4)
William J. Platt, Aircraft Prog. (4)
Alfred V. Weston, Insp.-Electron. (4)
Charles F. Ballweg, Mech. Struct. and Prototype (5)
Henry J. Gobrick, Supp. Equip. Prod. (5)
Charles Carretta, Insp.-Electron. (5)
Walter J. Karl, Train. and Devel. (6)
John A. Transue, Ordnance (6)
Joel Beach, Elect. Install. (6)
Milford R. Combs, Structures (6)
Robert Cochrane, Calv. Warehouse
Engelbert J. Rotzinger, Mfg. Insp. Elec. (6)
Earl E. Schulz, Q.C. Mgmt. and Admin. (6)
Lloyd A. Deckman, Fluids (7)
Gerald E. Lange, Maint. Contrl. (7)
Ambros C. Cotrone, Chem. Engg. (12)
Robert A. Wagenseil, M.E. Producibility (12)
Joseph M. Mizzo, Transport. (20)
George J. Moletz Jr., P/S Prog. Ctl. Mgmt. (25)
Carmine N. Botti, Release and Control (25)
Robert L. McConaughy, Adv. Space Syst. (25)
Douglas F. Martin, Fiberglass (27)
James L. Lagerstedt, Production Plt. (27)
Benjamin Tauber, Insp.-Mech. (27)
James J. Magee, Repair Control (30)
Oscar A. Kreischer, Requirements Plan. (30)
Thomas D. Bond, P/S Prog. Supply (30)
Cornelius H. Watson, Prog. Mgmt. (34)
Angelo J. Proscia, Sub-Assy. (36)
August Spadalik, Hull Assy. (36)
Joseph J. Jaeger, Final Assy. Struct. (36)
Joseph Feola, Insp.-Mech. (36)
Louis A. Mazzocchi, Wire Prep (44)

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Rocco W. Abruzzese, Maint. (1)
Jane Passeggio, Repro. Serv. (1)
Lawrence J. Klag, Alg. and Cr/Arm. Pyrotech. Sys. (1)
Charles L. Ebbecke, Maint. (2)
Boleslaw Reiner, Convent. Mach. (3)
William Pinto, Final Assy. (3)
Maybe Kralick, Food Service (3)
Charles H. Heimann, N/C Mach. (3)
William Branston, Mission and Sys. Analysis (5)
John Carroll, Executive Staff (5)
Vincent W. Annabel, Maint. (6)
Patsy Ruffini Jr., Maint. (6)
Frank Kito, Maint. (6)
Charles F. Cipriani, Maint. (6)
Frank A. Joanides, Maint. (6)
George L. Bixby, Maint. (6)
Peter J. Grubb, Maint. (6)
Edward L. Nonnenmacher, Maint. (6)
William Newalls, Maint. (6)
Joseph Fischer, Maint. (6)
Paul E. Runyan, Food Serv. (6)
Stephen T. Marciante, Plant Protection (6)
Warren E. Strittmatter, Invent. Cont. (6)
Gordon E. Hurley Jr., Administration (7)
Ladislaus J. Malina, Maint. (12)
Edward Dmuchowsky, Maint. (12)
Henry W. Rau, Maint. (12)
Joseph Laveglia, Maint. (14)
Harry Beringer, P/S Mech. Eng. Mgmt. (15)
Thomas J. Ryan, Plant Protection (18)
Robert O. Ames, Proc. Mgmt. Info. Sys. (30)
Patrick F. Murphy, Proc. Mgmt. Info. (30)
Everett J. Maxwell Jr., Sell. Des. Equip. (30)
Arthur W. Prevost, Q.C. Supplier C.H. (35)
Elizabeth Codoluto, Planning (36)
Robert J. Hendel, Prod. Mfg.-Budgets (36)
James F. Carter, Plant Stores (36)
Frederick V. Housley, Pwr. Plt. Marine (36)
Willard C. Ports, Harness (44)
Leo F. Torrens, GDS
Virginia T. Croken, GDS

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Mario F. Nunziato, Prod. Mgmt. (1)
Marion B. Eckhoff, Program Mgmt. - F-14 (1)
Alphonse Massucci, Assy.-Methods (2)
Robert H. Nelson, Templates (2)
Leonard G. Polak, Maintenance (2)
Thomas A. Brown, P/S Mech. Engg./Des. (4)
Fran J. Morcerf, P/S Sys. Tech. Mgmt. (4)
Sherman F. Martin, Prog. Engg. Mng. (4)
Joseph M. Murphy Jr., Static Test (5)
William O. Haisman, Static Test (5)
Edward A. Tolliver, Plant Stores (5)
Warren E. Bishop, Gen. Purchasing (5)
Harold G. Easterson, Presentation Serv. (5)
Robert M. Watson, Syst. Tech. (5)
Edward N. Foltmann, Instr. Test (6)
Bradford F. Wheat, Supp. Equip. (6)
Philip J. Gribbins, Jigs Detail (7)
George E. Berliner, Prod. Ctl. (7)
William J. Southard, Maintenance (12)
Edward J. Vasely, Mech. Engg. (14)
Robert D. Jones, Lab Mgmt./Tech. (14)
Henry J. Bernabeu, P/S Prog. Controls (25)
Marjorie A. Benesch, Repro. Services (25)
Gordon F. Hudson, Struct. Design. (25)
James C. Shroads, Estimating/Pricing (25)
Harry C. Kohlmeyer, Proc. Mgmt. Info. (30)
Helen L. Ulrich, Requirement Planning (30)
Barney J. Jahoda, Gen. Acct. (30)
Edward F. Kruse, Acctg. Admin. (30)
Daniel J. Uebbing, P/S Prov. Requirements (34)
Charles W. Paden, Maintain. Design (35)
Suey L. Jue, Research Ops (35)
Donald S. Wolf, P/S Training (39)
William R. Klinger, Elect. Prod. Engg. (87)
Richard S. Marvin, Jr., Base Mgmt. (88)
Richard H. Ahders, GDS
James E. Thompson, GDS
Virginia M. Hall, GDS

Flower show draws big crowd; Haney wins best-in-show

On May 9th, the Grumman Garden Forum held one of the largest Spring Flower Shows in years. Hundreds of employees visited the Plant 30 cafeteria to view the 250 entries which ranged from parrot tulips to spring floral arrangements.

Erma Haney of Invoice Audit, Plant 30, won a blue ribbon in the novice tulip class, and went on to win herself the best-in-show trophy, too, for her green thumb. Erma was hesitant about joining the show but with a little encouragement from show manager Marie Catalano, Erma submitted her first entry into the Spring Flower Show—and came out the top winner amongst the "pros."

The prizes were given out by Vice President Tom Rozzi to the following winners: Mike Smith, Will Pettit, Steve Kertesz, Harry Zvonik, Mike Gabriel, William Hill, Dorothy Grimes, Lynn McDonald, Mado Lamounette, Ann Prochoroff, John Horton, Margaret Sanfilippo, Frank Sadowski, Kay Zuk, Dorothy Kappenburg, Mary Hutter, Otto Schinneis, Gus Preiser, Arline Montgomery, Sophie Agiesta, Kay Trestka and George Rath.

Erma Haney

Coming up roses

Everything will be coming up roses on Wednesday, June 12, in the Plant 35 cafeteria. Those interested in entering the annual Grumman Garden Forum's Rose Show should bring their entries to Plant 35 cafeteria no later than 8:30 a.m. on the day of the show. Those in plants outside the Bethpage area should contact Kay Zuk, Ext. 3391, and she will arrange to have your entry picked up that morning. The show is open to all Grumman employees and retirees, and will be open for viewing during the two lunch periods.

Tip for beginners

If you have a son or daughter who plans to work for the first time this summer, you'd better make sure that he or she has a Social Security card because it's necessary for full-time, part-time, or temporary employment. Application for the card should be made at once, says the Social Security office, by mail, phone, or personal visit to a local Social Security office. Don't delay.

Shareholders' Meeting

(Continued from page 2)

• doubling the size of the time-sharing capacity in the Computility Division in Boston.

• doubling the size of the Computer Microfilm Facility in Hicksville.

• expanding the New York and Washington offices and opening new offices in Hartford and Hamden, Conn.

Gruman Ecosystems' initial efforts began in 1970 in the environmental and mapping areas. "Our decision last year to phase out of aerial survey operations helped us show a profit for our environmental efforts in 1973," said President Bill Schwendler Jr. "We became recognized by the power utility industry in the Northeast for our capabilities in providing environmental impact assessments and marine environmental studies, and we currently have under way power plant siting studies for two nuclear plants in the New York area. In additon, we have a continuing workload in providing environmental reports to government and industry to meet regulatory requirements."

Schwendler said that the subsidiary has about $4.5 million of "contract backlog," including a million dollar municipal incinerator upgrading and five packaged sewage treatment plants for developers. In addition, the subsidiary was recently awarded an $8.8 million contract for a sewage plant in West Palm Beach, Fla., and is expecting a contract for incinerator upgrading in Pawtucket, R. I.

Grumman International President Bob Townsend reported that many of the activities of this subsidiary, started in 1972, "began to bear fruit" in 1973. He singled out the signing of a letter of offer for 30 F-14s and associated support by the Imperial Iranian Air Force.

"This sale involved many elements of Grumman, as most major international sales will," Townsend said. "Presentations were made by Grumman Aerospace people and by people from International. A Grumman American Gulfstream II was used several times to transport key Iranian personnel and, of course, there has been complete support encouragement and backing by Grumman Corporation. In addition, substantial support was given by the Department of Defense and our major customer, the U.S. Navy."

Other products and capabilities he mentioned that are vying for attention in the international marketplace include the E-2C; the Automated Telemery System for flight test data gathering; electron beam welding; the HU-16 Albatross, the OV-1 Mohawk and the S-2 Tracker; the Gulfstream II; Pearson Yachts; Grumman canoes; and Grumman motorhomes.

Summing up the overall tone of the meeting, at the conclusion of his talk, Bierwirth said: "We have our share of problems, but the momentum is going the right way. We look forward to 1975 when the last of the old F-14 contract planes will be delivered, and the first profitable F-14 will take to the skies. The market position enjoyed by most of our commercial products is good and is getting better. The merger of Grumman Allied into Grumman Corporation will permit us to accelerate the growth of Allied's operations. Grumman is an exciting company. I have every confidence that you will enjoy being shareholders more and more as the future unfolds."

Motorhome selected for mobile office

The Grumman 25-foot Motorhome has been selected by Amazonex Industrial Exporatadora, South America's largest manufacturer of specialized wood products to serve as a mobile office and living quarters during field operations. The motorhome was picked because of its rugged construction and its ability to withstand the severe climate conditions of the Amazon region. The transaction was made through Grumman International, which handles the sale of Grumman products throughout the world.

Women's tennis

GAA is looking for experienced women tennis buffs interested in forming a varsity tennis squad. You don't have to be a Billie Jean King or a Chris Evert to join the newly formed L. I. Industrial league circuit, just have the tennis "bug" and experience to play in the matches. Anyone interested in competition play, contact Rita Looney of GAA on Ext. 2133 or 2269.

Islander tickets . . .

The hockey season is over and Islander fans are crying "just wait until next year." Well, now is the time to acquire season tickets to the N.Y. Islanders home games for the '74-'75 season. They are going on sale at the GAA office until May 30.

Tickets are available in sections 335-336-330-332; for one seat season pass, $84; for two seats, $168. You pay half the fee when you sign up at the GAA office in Plant 30, and the remaining balance by August 29.

Field Day set for radio hams

The "hams" in the Grumman Amateur Radio Club will again participate in the American Radio League's annual field day exercise to test the efficiency of "ham" radio stations functioning under emergency conditions throughout the United States and Canada.

During the 24-hour period beginning Saturday, June 22, at 3 p.m., the Grumman hams will belabor the airways from their improvised radio station, WA2LQO/2 at Grumman's McKay field. Their objective is to make as many completed two-way radio contacts as possible during the round-the-clock period.

This year marks the 15th year of competition for the Grumman squad. Ray Schubnel will be the '74 Field Day Chairman. All licensed hams at Grumman are invited to participate and are asked to meet at 10 a.m. at McKay field the morning of June 22 to help rig the station. For more information, contact Schubnel on Ext. 3352 or the club's secretary, Emmett Goodman on Ext. 87125.

Sport shorts

It happens every spring! The Grumman keglers, pistoliers, and table tennis players struggle to wrap up the long winter season while at the same time, head for the golf courses, softball diamonds and tennis courts. And as you can imagine, there's a lot of noteworthy performances to recognize.

On the alleys, the keglers have finished their long, long season . . . except for a few league parties and trophy presentations. Final standings in the Hawkeye Mixed league found the Three + One team in first place: Earl and Maude Schulz, Fran Zuk and Tom Cava. Most improved awards went to Richard Zevens and Beryl Cullimore. Lonnie Bresnick, 259; and Arlene Schwemmer, 228, won the season's high game trophy.

In the Syosset Mixed league, Monica Wojtyniak, 225-604; and Rob Ogilivie, 265-711 won top honors for season play. The Alleygators copped top post. Members of the winning team are: Roseann Maglione, Joan and Bill Diercks, Eric Bunzel. The Impossible Dreams (Mia and Mell Gill, Carolyn and Mike Viafora won in Century competition. Nancy Gentzlinger's 224 and Bill Kallanrude's 247 earned them high-game trophies. On the Gray alleys, L. Schilling, R. Heitzmann, T. Main, G. Young, C. Weizenecker and F. Drum of the OTH gang walked away with the league title. High game honors went to T. Main. The Burgess duo of Joan and Gene teamed up with the Beckers to win the Patchogue Mixed league title. Joan was season high with 229-611; husband, Gene, had high series, 644; and Mike Schully had high game, 256.

On the links, Joe Plunkett located the cup with an 8-iron shot at the 140-yard 5th at the Half Hollow Hills Country Club in Dix Hills. John Maier can attest to that!

The NAS Miramar Tomcat Golf league took a mid-season break from league competition to play a three-club tourney. All 28 members, using club combinations such as 3-wood, 8-iron, 3-iron (used as a putter), competed on the 35-par Miramar course. Frank Riley, 38, was low gross; Hal Kirvin, low net, 32; longest drive, Terry Newitt; Morris Whitford, closest-to-pin; and Ray Hanlon had the least number of 3-iron putts with 16.

On the pistol range, the Grumman pistol squads faired well in the L.I. Industrial League. High average on each team: "B" team - Marcello Longa, 248; "C" - Michael Baumgarten, 261; "D" - Al Berka, 278; "E" - Tom Cassino, 234; Gold - Ron Trenkner, 273.

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